MELVILLE — VIEWS

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OF

COMMODORE GEORGE W. MELVILLE,

CHIEF ENGINEER OF THE NAVY,

AS TO

THE STRATEGIC AND COMMERCIAL VALUE OF THE NICARAGUAN CANAL, THE FUTURE CONTROL OF THE PACIFIC OCEAN, THE STRATEGIC VALUE OF HAWAII, AND ITS ANNEXATION TO THE UNITED STATES.

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OUR FUTURE ON THE PACIFIC.

WHAT WE HAVE THERE TO HOLD AND WIN.

The closing years of the century seem to be, in all lands save our own, years, not of war, but of a strenuous making ready for it. Alsace and Loraine, the Eastern question in its many varied phases, and the jealous rivalry as to colonies and dependencies, make continental Europe but a camp, with more than 3,000,000 men constantly under arms. England is yet quenching the flame of revolt which flashed among the wild tribes of her Indian frontier; and, in the Soudan, too, she is marching on. Spain drains her uttermost resources for Cuba's fading tenure. In the far East, with China's sudden fall, the balance of power has been disturbed, and the throb of the war drum seems not yet stilled but muffled only, until Korea's tale shall be fully told. "There never was a time in the history of the world," General Miles has said, "when so much energy, ingenuity, and wealth were being expended to maintain large standing armies."

On the sea there sounds the same foreboding note. Great Britain, despite her matchless naval array at the jubilee, will have under construction during the present fiscal year over 100 vessels. France, with many now building, will lay down others, aggregating 45,000 tons displacement. Germany plans a modest increase in a battleship, some gunboats, and torpedo craft; but the Kaiser's eager insistance on a great sea force is widely known. Russia—silent, mysterious—moves swiftly in her upbuilding as a naval power, not only in armor clads, but in cruisers of great steaming radius. Japan is executing a programme which will give her navy a total addition of 200,000 tons. Even China, whose ships went as sheep to the slaughter, dreams of a fleet revived, and is said to be considering estimates for its creation.

Only the United States moves slowly, calm in the consciousness of peace, although the Chilean and Venezuelan affairs, the undying strife in Cuba at her doors, and the cloud, "the size of a man's hand," in Hawaii, have given fearful warning that the "detached and distant situation," of which Washington wrote, will shield her no longer from international complication and, it may be, conflict.

THE MARINE ENGINE AND MODERN NAVAL STRATEGY.

It has been well said that "with the development of the marine engine the sea unites rather than divides widely separated lands," and to this it may be added that the swift progress of steam in marine propulsion has been a most potent factor in shaping the exterior policy of maritime nations, and still more in modifying, not the principles, but the scope and methods of naval strategy.

On the land rails of steel traversing valley, plain, and mountain make easy the path of the flying express and the fast freight, which together conquor time and distance in the binding into a homogeneous whole of the many States which form a Republic almost continental in extent; but the railroad is fixed, a permanent way, whose direction varies only with new constructions. The sea, on the contrary, gives a track—fluid, mobile, universal—which turns wherever swift prows may point, and on which massive hulls, much too huge for any form of land transit, may pass with ease from port to port.

Moreover, when in 1805—nine years after Washington wrote of America's "distant situation"—Nelson "chased half around the world a French fleet nearly twice the force of his own, scared by the very terror of his name," his fierce ardor fretted itself to fury with his ships, which through a run of 7,000 miles of sea averaged but 93 miles a day, or less than 4 knots an hour.

"Salt beef and the French fleet are better than roast beef and champagne without it," said the great Admiral in beginning his stern chase. He found that fleet, and with it death; but in the finding, through those lagging months, while drifting or beating over those leagues of sea, he must have felt to the full the limits which stinted the sea power of his time.

Steam has changed all this. Over the same western ocean which Nelson, bitterly impatient, crossed and recrossed so slowly in 1805, the United States cruiser *Columbia* swept, ninety years later, at a speed of 18.41 knots per hour, or four and three-quarter times that of the ships which, dull sailers though they may have been, were very sure and deadly in their work at Trafalgar.

This passage, in its sustained speed through such a distance, was not only a triumph, yet unequaled, for American naval engineering—it was as well a flashing illumination of the strategic fact that America's isolation, militarily, from European and Asian nations had diminished in this age in most marked degree. While it is not yet possible for the performance of the swift *Columbia* to be equaled in a trans-Atlantic run by armored battle ships, it seems quite certain that Nelson's speed can be increased nearly threefold, and that at this increased speed and within two weeks a European fleet of any required strength could be thrown upon our Atlantic coasts with one-third of its coal supply remaining.

GEOGRAPHIC ISOLATION NOT A SAFEGUARD.

The geographic isolation, apparent or real, of any people has never yet been respected by superior forces. It forms no sure guard when, in peace or war, the nations of the earth come knocking at the door. Ancient Peru—peaceful, rich, unwarlike—was many leagues from Spain, and between them the waves of two oceans rolled. Yet there came Pizarro and his adventurers, soldiers less of Spain than of the lust of gold. The Inca fell, and the land was stripped of its fatal wealth; its people were enslaved, and in slaughter, torture, and rapine a noble civilization perished.

In later times, China, arrogant and ignorant, learned, in a measure, the same lesson. While her officials babbled of invading England overland through Russia, the war of 1840 was waged against her by the people of that small island, parted from her by a hemisphere; and that war wrested Hongkong from her shore line, seized in indemnity $21,000,000 from her treasury, and by force opened five of her ports to the commerce of the world.

These examples, it is true, come from the conflicts of higher civilizations with those differing from them more in kind than in degree; but the world's annals are not bare of similar illustrations from the wars of less unequal foes. While in its ending our own story brought victory, not defeat, it is yet well to remember that during the Revolution there were landed in America nearly 50,000 foreign troops; that in the war of 1812 British forces of nearly 25,000 men attacked the territory of the United States; that her ports were blockaded, and that in 1814 her Capitol was burned.

If, then, it be admitted that the safeguard which the detached situation of the United States has given her grows weaker with every advance in the methods of sea communications; if no more she watches from afar, in security and peace, the growth and strife of over-sea peoples as alien largely to her own interests and progress; if the "Titan of the West" is no longer "behind a thousand leagues of foam secure," then it would appear to be the part, not only of national wisdom, but of national salvation, to conserve and fortify that which remains to her of advantage in location by adequate coast defenses, by a powerful fleet, and by the occupation as opportunity shall come of outlying islands, her shore line's frontier posts.

WEALTH OF THE PACIFIC STATES.

"Imperial in extent and of extraordinary growth," so said James G. Blaine, in 1881, of our possessions on the Pacific coast, adding that the territory dependent on that ocean for commercial outlet comprised "an area of nearly 800,000 square miles, larger in extent than the German Empire and the four Latin countries of Europe combined."

These strong words find but emphasis and amplification in the striking discussion of our national statistics presented recently in the North American Review by Mr. Michael G. Mulhall, F. S. S., of England. The total wealth, in the year 1890, of the eleven States included by him in the Pacific group, he gives as 6,811 millions of dollars, or $2,318 per inhabitant. With but 6 per cent of the population of the Union, they hold 10 per cent of its wealth. Their railway mileage is greater than that "of any European state except France or Germany, and their wealth exceeds that of Sweden, Norway, and Denmark, in the aggregate."

While, during the forty-four years ending with 1893, they produced nearly 2,400 tons of gold and over 30,000 tons of silver, having a total value of nearly 3,000 millions of dollars, analysis shows that these States are not mining camps, and that their swift growth dates not from the days of '49 but from the year 1870. At that time their possessions were valued at 727 millions of dollars. During the two decades which followed their wealth increased ninefold, to the magnificent total already stated, of which mining properties form but 8 per cent.

Of profound importance is the fact that the richest portion of this territory is that which is most exposed to blockade, raids, bombardment, and the losses and suffering which attend warfare or invasion from the sea. Three only of these eleven States lie upon the coast—California, Oregon, and Washington; and these three hold, of the total wealth of the group, 57 per cent, or 3,885 millions of dollars; 2,534 of the millions are the share of California, the "isle of many jewels and much gold" of the old Spanish romance—a title which seems hardly apt, since, while her mines are valued at 83 millions of dollars, her buildings and farms reach 1,746 millions, owing, doubtless, to a soil

and climate which give her vineyards of 30,000 acres and fruit gardens the most extensive and productive in the Union.

The slender share which the United States has won thus far in trans-Pacific trade is shown by the fact that, although San Francisco is the seventh city of the Union in population, there passed through the Golden Gate in the year ending June 30, 1896, but 4.39 per cent of our total import and export trade, with shipping entries of 1,200,000 tons. The Pacific coast as a whole is credited with a share of this total trade, amounting, during the year as above, to 5.69 per cent.

ALASKA.

Linked far more with the future than with the present of the Union is the Territory of Alaska, Al ak-shak, "the great land" of the aborigines. Purchased from Russia in 1867 for 7¼ millions of dollars, this Territory, for long years discredited, bids fair to repeat, in part, the history of California, and, from the products of its mines alone, to repay many times over its relatively trifling cost. Years, not distant but at hand, will more than vindicate the judgment and foreknowledge of the great Secretary, whose name will live in the history of the wide lands he acquired in the far north.

With an area—including those of its coast islands and the Aleutian Archipelago—of 580,170 square miles, Alaska is nearly six and one-half times the size of the States of New York and Pennsylvania combined. On Bering Sea and the Arctic and Pacific oceans it has a coast line of 4,750 statute miles. The perennial friction over its seal fisheries clouds the worth of other resources far more valuable. In its wide-spreading forests of cedar, pine, hemlock, and fir there is a world's supply to draw on when other sections fail, while its catch of salmon, cod, and other food-fishes is, in amount and quality, unexcelled, if equaled, elsewhere.

Alaska is, in effect, an over-sea province, separated from the Union not only by British Columbia, but in great part by a long stretch of ocean. Excluding the narrow strip along the coast of the continent, the air-line distance from San Francisco to the nearest point of its compact area is fully as great as that to the Hawaiian Islands, or over 2,000 miles. To Atton, the farthest island of the Aleutian group, this distance is doubled. The development and protection of this imposing and most valuable territory will give problems for the future far from easy of solution.

THE DEVELOPMENT OF THE PACIFIC OCEAN.

As with the Pacific States, the development of the vast ocean which they confront, the largest and noblest body of water on the globe, has been not slow and lingering, but almost wholly deferred until a recent period. To the comparative inaccessibility of its seas the long waiting must be ascribed in great degree. It can not be doubted that if nature had but cleft a waterway through the American isthmus, the growth of the Pacific to the northeast and the south would have begun almost with the coming of Columbus.

But this was not to be. Barred on the southeast by the stormy terrors of Cape Horn, its northern portals were blocked, seemingly for all time, by the polar floes. More than two hundred attempts were made to double the Arctic coast of America before Franklin's men laid down their lives in "forging the last link of the Northwest Passage."

The Northeast Passage has a story, not so continuous, but lacking

not one whit in the fortitude and daring of the stern seamen who there essayed the Arctic Highway, whose lofty purpose held "either to bring that to pass which was intended, or else to die the death." Sir Hugh Willoughby, in 1553, led the van, sailing for those unknown seas to find, not the passage, but slow death in the White North. It was left for Nordenskiöld, nearly four centuries later, to complete the task begun by that heroic sailor.

And so, through the ages, the eastern and southern Pacific slept on in primeval peace, its dark waves unvexed by any alien keel, while to the westward empires, kingdoms, and republics rose and fell. With the dawn of the modern era there sailed the Genoese—dreaming but prophetic—"to add a new hemisphere to our globe;" and in 1513, from the peak in Darien, Balboa, the conquistador, looked on the unknown ocean. Eight years later Magellan passed through his fog-enshrouded straits and a European keel first cleft its waters. Through the labors of those who followed—from Drake to Vancouver, but most notably of Cook—the work of discovery, and to some extent of colonization, went on.

Progress, however, was so slow that, in the year 1830, it was estimated that there were not more than 500 men of Anglo-Saxon race west of the Sierra Nevada on the continental shore; much of the island territory of the South Seas was little known and yet unclaimed, and as to Australia, not until 1845 was there dispelled the error that there existed within its borders a great inland sea.

Within a decade or little more, however, the full awakening of the Pacific seems to have come. The outward surge of the nations of the Old World, so marked in its effects upon the African continent, has sent as well waves of unrest over the placid ocean, which have broken on the shores of its uttermost island. Long ago, William H. Seward, in addressing the United States Senate, said, as to the commerce, politics, thought, and activities of Europe, that they would "ultimately sink in importance, while the Pacific Ocean, its shores, its islands, and the vast regions beyond, will become the chief theater of events in the world's great hereafter."

Realization, more or less full, of this seems to have created, as to the southern Pacific, in these recent years, a feverish hunger for island territory, whose ravenous desire fails only with that on which it feeds. In 1885 Germany (whose greed for Samoa has been so open and so strong) annexed the great Marshall group, midway between the Australian steamship lines from British Columbia and the possible Asian lines of the future from the Isthmus; France added to her large possessions in New Caledonia and the Society Islands by taking the Marquesas Islands and the Low Archipelago; and Great Britain has declared protectorates over island after island and group after group—the Gilbert, Ellice, Phœnix, and many others—all on, or near and flanking, her steam routes from British Columbia to Australia and New Zealand. Her flag thus floats over most of the territory of the southern Pacific, and is seen as far north as Johnston Island, 600 miles from Hawaii.

Only the United States has stood aloof, holding Samoa with reluctant hand and turning wholly from Hawaii, while other nations have acquired territory in those waters which covers and guards the commerce of the coming years. "While we have been talking in our sleep about Hawaii," a keen observer notes, "England has occupied and possessed a score of islands in the greatest of the oceans." There may come a time when the sons of a Greater United States will deplore, as slum-

brous unwisdom, the policy of to-day, since, in a commercial and strategic sense, Ultima Thule itself would seem to have been seized in the South Seas.

In striking array, the Hon. John R. Procter has marshaled the political changes that have come, in these recent years, to Pacific and Indian shores and islands, with their potent effects on the patr which the great ocean, its lands and peoples, shall play hereafter in the world-wide drama of international life and strife. He has said:

> The presence of Russia in the Far East and the possibility of a combination between Russia and China, followed by the awakening of China from her sleep of centuries; the extension of French dominion in Indo-China, Siam, and Madagascar; the partitioning of Africa and the islands of the Pacific among European Powers; the industrial growth of Japan and her entrance into the family of nations as a great naval and military power; the completion of the great military highways from Halifax to Vancouver and from St. Petersburg to Vladivostock; the rapid peopling of British Columbia and our North Pacific States and of the Amur and Manchuria districts, all tend to change the front of the world and to transfer to the placid Pacific the national activities which for three centuries past have rendered the Atlantic the theater of stirring events.

On the shores of such an ocean, confronting such a future, there stands the vanguard of our Pacific States, the stately advance of that Western domain—imperial, truly, in its extent, its present wealth, and its potentiality of riches beyond the dreams of to-day—which the Republic, its statesmen, its fleets and armies, can not guard too well. With unstinted possibilities of progress that future holds, for it and for the nation, the dangers of contact and of conflict on this ocean with powers, old or new in the world's history, whose political or commercial interests the swift changes of the years make antagonistic to our own.

DEFENSES OF THE PACIFIC COAST.

During the early days of the civil war the isolated and unprotected condition of the Pacific States aroused fear for their safety, in the then possible event of intervention, in that conflict, by European powers. For a generation a transcontinental railway had been under intermittent discussion, and the possible danger of attack in the West gave the matter definite shape in the passage, in 1862, of an act which, with its later amendments, offered Government aid of a most generous character in the building of such a road.

A broad right of way was given through the national domain, with ample grants of public lands, and with the issuance to the company of Government bonds to a large amount—reaching, in some cases, $48,000 per mile—in exchange for second mortgage bonds of the road. Thus, through the vital necessities of defense in the stormy years of war, there was born the movement which ended in the building, with unstinted national expenditure, of the Union Pacific Railroad, whose last spike was driven in 1869.

The facilities now offered for the transportation of troops would seem to render improbable the successful invasion by land of the Pacific States. Doctrines formulated in the early days of the Republic still hold in keeping the army of the United States low in numbers, although not in efficiency. Back of it, there stand, however, a militia of 112,000, with a force, unorganized but available, of over 10,000,000 men, capable of bearing arms. The three coast States have a total militia of about 6,100, and California alone has, in addition, 205,000 men, available but unorganized. From continental foes, the Pacific group would seem, eventually, to be secure, although the absence of a large force of trained soldiery might be felt in the first actions of a sudden war.

With the shore line and the sea, however, different conditions are presented. According to the authorities of the Coast Survey, the Atlantic seaboard is 2,043 statute miles in length, the Gulf coast 1,852 miles, and the "Pacific coast line, from the Mexican boundary to the Strait of Fuca, including the straits of Race Rock Lights, is 1,810 miles." Excluding Alaska, then, the rich territory on the Pacific is bounded by one-third of our total shore line; and upon this coast, exposed directly to bombardment from the sea, there are four large cities. To a very recent date, at least, the defenses have comprised but obsolete works at San Diego, San Francisco, and the mouth of the Columbia River.

It is true that the Board of Ordnance and Fortification has presented estimates, aggregating nearly $3,000,000, for guns, emplacements, and barracks at the points named, with Puget Sound in addition; but this material forms only a fraction of the 500 high-powered guns, 1,000 mortars, 360 rapid-fire guns, and 6,000 submarine mines now under construction for the protection of nearly 25 harbors on the three coasts. It is stated that not more than one-half of the total number of guns will be in place by the summer of 1898; and, with the pressing demands of the Atlantic and the Gulf, it is to be presumed that the West will be given no precedence.

Again, to man the whole of these seacoast batteries, the present artillery force must be strengthened by the enlistment and training—the latter a work of time—of not less than 7,500 men as a skeleton organization in peace, to be increased to probably 30,000 in war. It would seem, then, that the defenses of even the four main points of the Pacific coast are wholly inadequate and are likely to remain so for a considerable period, while in the end the many vulnerable positions remaining on that extended shore line beyond the fire of these fortifications will be indefensible save by a fleet.

Long ago, for England, Sir Walter Raleigh laid down her true policy of defense, a policy which succeeding generations sometimes remembered, sometimes forgot, as the years passed, but which she has reaffirmed most significantly as the century draws to a close. Not for world-empire nor for commerce-defense only has she "doubled her navy in personnel and material and more than quadrupled it in warlike efficiency during eleven years of the profoundest peace the world ever saw." In his Historie of the World, Sir Walter says:

> But, making the question general, the positive, "Whether England, without the help of her fleet, be able to debar an enemy from landing," I hold that it is unable to do so, and therefore I think it most dangerous to make the adventure.

Again, the Duke of Wellington, in writing Sir John Burgoyne as to the English coast from North Foreland to Portsmouth, said that—

> Excepting immediately under the fire of Dover Castle, there is not a spot on the coast on which infantry might not be thrown on shore at any time of tide, with any wind, and in any weather; * * * that, in that space of coast, there are not less than seven small harbors, or mouths of rivers, each without defense, of which an enemy, having landed his infantry on the coast, might take possession, and therein land his cavalry and artillery of all caliber and establish himself and his communications with France.

If this be possible in England, with her compact territory guarded by stormy seas, and despite her 250,000 available combatants outside of the garrisons, providing only that the command of the sea be lost for the time, it may safely be said that, with a fleet, weak, absent, or defeated, the long stretch of Pacific shore must afford not a few vulnerable points, far from the great centers, susceptible of easy seizure by

hostile ships, and capable of efficient defense by their forces while used as a base for naval operations on the coast. Under these conditions enormous damage might be inflicted by one or two powerful squadrons unopposed upon the sea.

The fleet is, then, an element of the utmost importance to the defense of what Mahan calls "our weakest frontier, the Pacific." At the beginning of the present year the United States had on the western coast 9 vessels, aggregating 35,141 tons displacement, and across the Pacific, in Asian seas, 5 more of 13,846 tons—a total force of 14 modern vessels of 49,987 tons. Reenforcements to this fleet from the Atlantic coast could reach California only in about ninety days or more from New York, allowing for necessary stops en route, and after steaming through more than 14,000 miles in waters on which the United States has not one station for supplying and refitting vessels. The time, the distance, and the probable difficulty of coaling in foreign ports after hostilities shall have begun practically prohibit relief in the swift coming of modern war.

Japan has at this time a fleet, building and built—the latter almost wholly—of 48 vessels, aggregating 173,057 tons, excluding torpedo craft. Great Britain, at the close of last year, had stationed in her Pacific, Australian, and China squadrons a total of 41 vessels of 97,200 tons. The Siberian fleet of Russia at that time comprised 13 cruisers and 6 torpedo boats, to which should be added the ships from the Cronstadt station doing duty in Pacific waters.

It will be seen that, with this great and defenseless coast to watch, the United States has there on guard a modern war tonnage equal only to about one-half that of Great Britain in this ocean and to about 28 per cent that of Japan. It is true that the comparison is but general; that many of these foreign ships are small; that a long stretch of the Pacific parts many from our shores, and that other conditions would prevent the dispatch, by either nation, of more than a portion as attacking fleets.

On the other hand, behind Great Britain's squadron lies a limitless reserve, and from Esquimault, if she could hold that fortress, or from Hawaii, if she could take the islands, she could throw a fully equipped fleet on this coast. Of Japan, granting her Hawaii, this is true also; and since the naval strength of that young giantess among nations grows faster than the virile locks of the blind Samson, her power—although surely not her will—for attack, increases with every passing day.

With a fleet so weak that it can neither command the sea nor defend fitly its coast, the strides which steam has made in the methods of sea communication gives a gravity, without precedent hitherto, to the danger of maritime invasion. Unobstructed on the ocean, Spain, although poor in money and weak in military power, has yet been able to transport, in less than eighteen months, across 3,000 miles of sea, nearly 190,000 troops to Cuban shores—a feat without parallel or approach in the annals of modern war.

This object lesson, still in full view, gives for the future added force to the question put by Murat Halstead:

> What will happen if the Asiatic redundant population, instead of moving westward and finding land in Europe, as they did thousands of years ago, should turn eastward and contest with us the American shores of the Pacific?

In reviewing the defenses, ashore and afloat, of the Pacific coast, it would seem that in the past the action of the nation has been governed in this—as for a generation in many military matters—by a

spirit of self-confidence, of easy optimism, which would be warranted only if "the battle flags were furled" for all time. Naval and military authorities have done their utmost with the forces at their command. "We, the people," alone are at fault.

"To provide for the common defence" was one of the purposes for which our fathers ordained and established the Constitution. This purpose seems here to have failed of full execution in coast defenses, in the fleet, and in the past refusal of Hawaii, the island outpost of this shore.

Captain Scriven, U. S. A., writing in 1894, contrasts national confidence with actual conditions, thus:

> We have fought the great war of modern times. We have had millions of men under arms in the field. Our military power on land is without limit; therefore we are unconquerable—such is the reasoning. But we forget that the United States is, by nature and by neglect, one of the most vulnerable nations of the world, and that no great power has so vast an extent of frontier exposed to the attack of an enemy.

It should be remembered, too, that this war cost half a million lives, a direct outlay of 2,675 millions of dollars, and a great pension list which now, more than thirty years after, reaches 140 millions—a debt which the nation pays in thankfulness, not only to the fading ranks of war-worn men, now maimed and old, who marched to the music of the Republic's battle hymn and spent their blood like water for the flag, but to the kin of many another who, on sea or land, gave for that flag even life itself, and now sleeps in peace beneath the Southern pines or in the silent depths of the dark sea.

But how much of this was necessary? What blood and treasure were spent in vain—through lack of preparation, of war material, of a trained personnel—in such land actions as the first Bull Run, or such sea fights as that between wooden frigates and the ironclad *Merrimack?*

OUR COMMERCE ON THE PACIFIC.

The United States has a further interest than defense alone in the Pacific, its islands, and its distant shores. We have, as has been shown, a territory dependent on that ocean for commercial outlet of 800,000 square miles, larger than the combined area of the German Empire, France, Italy, Spain, and Portugal; while the wide expansion of the transcontinental railroad system and the probable completion, in early years, of the Nicaraguan Canal give other States as well interests of grave importance in Pacific and Asian commerce.

With fertile soil, improved methods of agriculture, and appliances—as a whole, without equal—for manufacturing, the United States, despite its home market, whose demand stirs the envy of the world, has much to spare for other lands. The exports of domestic merchandise for August, 1897, were valued at 79½ millions of dollars. During the year ending June 30, 1896, the exports include of domestic merchandise, 863 millions; of breadstuffs, 141 millions; of provisions, etc., 131½ millions; and of cotton, unmanufactured, 190 millions.

The wealth of the United States exceeds that of the United Kingdom by 20 billions of dollars, and it increases at a rate hitherto unknown to history. The growth in manufacturing may be judged from the advance in the amount of manufactured products sent abroad. In the year ending June 30, 1894, these products formed 21.14 per cent of the total exports; in that ending June 30, 1896, their proportion was 26.47 per cent, and they aggregated in value about 228½ millions of dollars.

Agriculture gives not only an enormous total production, but that production is obtained, through improved machinery, by a minimum of human labor so low as almost to forbid comparison with the methods of Europe. There is yet, also, a vast acreage untilled, the Pacific States alone, 11 in number, having but 6 per cent of their area under cultivation. Mulhall states that the aggregate energy, in foot-tons, of France, Germany, and Great Britain is almost exceeded by that of the United States, and says further, as to agriculture, that the labor of each farm hand throughout the Union is equivalent to a production of 14 tons of grain, and in the Pacific States to 30 tons. The average per hand is thus fully eight times that of Europe.

The extent of and the possibilities for America in the markets to the westward of her shores are indicated by the Hon. John R. Procter when he says:

> More than one-half the population of the world is in countries fronting the Pacific and Indian oceans. The foreign commerce of the countries bordering these oceans, excluding North America, already amounts to over 2¼ billions of dollars a year. * * * The time is approaching when the cotton growers of the South, the wheat growers of the West, the meat producers of our plains, and manufacturers and wage-earners all over our land will realize that exclusion from Asian markets will be disastrous to their best interests.

As has been stated, but 5.69 per cent of the total import and export trade of the United States passes through Pacific ports, which in itself gives indication of our feeble interest in the markets of Australasia and the Orient. While the commerce between these regions and both coasts of the United States is considerable, it forms but a fraction of their vast foreign trade.

China alone imports yearly goods valued at nearly 130 millions of dollars; the imports of Japan amount to 138 million yen; those of British Australasia to 51 million pounds sterling—and so this world trade mounts. While to Asia, during the year ending June 30, 1896, we sent but 25½ million dollars' worth; to Oceanica but 17 millions' worth, and to Africa less than 14 millions' worth—the total exports to these countries reaching thus but 56¼ millions of dollars, diminutive, indeed, for countries whose foreign trade is 2¼ billions.

There seems no doubt that with the growing production of the United States and its swelling tide of exports a traffic, steadily augmenting, will flow from her western shores to the littoral of the Orient, to Australia, and to the Pacific islands. In this commerce the Atlantic seaboard will doubtless share largely with the opening of the waterway which will transform the Nicaragnan isthmus into an ocean cross-roads, where the East and the West shall meet.

OUR SHIPPING ON THE PACIFIC.

Closely allied with the future commercial interests of the United States on the Pacific should be the revival of its shipping, an industry whose decadence is, at once, a source of loss and of reproach. In the steady, if not swift, growth of our interests in the markets of that ocean, with the comparatively sudden leap in our over-sea trade which the Isthmian canal may bring, it seems impossible that there shall continue the deplorable conditions now existing in transoceanic service.

The Commissioner of Navigation, in his report for 1897, gives the registry for foreign trade as less than 800,000 gross tons—the lowest record since 1841. We have now a foreign commerce over seven times as great as in 1846, while our shipping in the traffic oversea is but about eight-tenths the tonnage thus employed in that year. To Great Britain, mainly, there accrue the profits from the express and freight service of the oceans.

Without reference to that which might be gained by a powerful American marine in service between foreign countries, the magnitude of the drain upon national resources, for the carriage of our own sales and purchases, should impel action for relief. Of this enormous loss Senator Elkins has said: "The United States pays $500,000 per day, or nearly $3 per capita per annum, to foreign shipowners for carrying what its people sell and buy," and a competent authority estimates further the amount lost annually in freight and passenger tolls and in the industrial increment represented by the necessary shipbuilding as over $300,000,000.

Before the days of iron hulls and before the *Alabama* and her consorts had left ruin in their wake, the United States showed its power to compete successfully on the ocean with the carriers of the world. The noble vessels of the new naval fleet, the steamers—superb, if but few—built for trans-Atlantic traffic, and the growth of shipbuilding on the Great Lakes, all show that our artisans have not lost their former skill.

On the lakes especially, the expansion of commerce has been swift and large. The tonnage which goes through the St. Mary's Canal is nearly twice that of Suez; although, with this, it should be remembered that the average length of the passages made by steamers through the latter is sixty days, while through the former it is but six. During the year ending June 30, 1897, there were documented for lake service 1.4 million tons of shipping, an increase of about 100 per cent within a decade. In that period, also, the cost per ton (dead weight ability) of large steamers has fallen more than 50 per cent in the lake shipyards; and there are now afloat fully a score of vessels of 8,500 tons displacement. The lake tonnage built during the last fiscal year exceeded that of all other sections combined.

The triumphs of the merchant marine of the old days, which bore our flag on every sea, and the great and growing fleet, constructed and employed at home, in lake and coastwise traffic, show, despite our meager tonnage in the foreign trade, that shipbuilding and ship owning are not exotic industries in the United States. It can not be, then, that the nation will long delay in taking again that high place on the sea from which, for a generation, it has turned to develop the lands, the manufactures, and the markets of half a continent. The coming years should see not only a vast commerce on the Pacific, to and from our shores, but, as well, a merchant marine, flying our flag, traversing every highway of that ocean—a great fleet which the nation by wise laws should foster and strengthen, and, by its armed forces afloat, should lead and guard.

But little more than a century has gone by since, on the winter wind at Valley Forge, there streamed a ragged flag, the star of hope to the stern soldiery, whose bare and bleeding feet reddened the snow, as they guarded it there. In the generations that have passed, that flag—with the clustering memories, not only of victory by land and sea, but of many a year of happy peace—has swept from ocean to ocean.

Shall a noble destiny lead it still farther on, as—

> Bright on the banner of lily and rose,
> Lo, the last sun of our century sets?

Shall its purpose hold, to follow the pathway of the stars, "to sail beyond the sunset," and—floating over Hawaii, in mid-Pacific—to guard the golden shore of the Republic, and to win a new glory on that wide sea?

THE STRATEGIC VALUE OF HAWAII.

"The possibility of the superior naval force controlling the open sea—either for facilitating its own marches across it for descent upon the land, or for preventing such descents by the inferior naval force—has assuredly grown and developed into probability and certainty by every improvement in the capacity of the ships to proceed over the sea and to maintain any given position on it"—thus Vice-Admiral Colomb, R. N., a strategic authority, writes of the speed, range of action, and seaworthiness of modern war fleets.

The vast shore line of the United States, the magnitude of the present and potential wealth there exposed, the, as yet, limited coast defenses, and the weakness, relatively to those of the great maritime powers, of the American fleet, all combine to make of vital moment to the Republic the march of improvement in warship design, which, while these conditions prevail, forms an ever-growing menace from beyond the seas.

In his further statement that "command of the sea is the only real defense for territory which can be captured by expeditions over it," Admiral Colomb but affirms the teaching of Raleigh and of many a statesman and seaman since Sir Walter's day. While it can scarcely be said that the territory of the United States is susceptible to the extremity of permanent "capture" in naval war, the nation's widely extended boundaries on both oceans render it, of all great powers, the most vulnerable to lesser degrees of maritime attack.

On the Atlantic and Gulf frontiers, the long chain of foreign naval bases, from Halifax to the Caribbean and within striking distance of the coast, will make that sure defense, the control of the sea, something to be bitterly fought for when war shall come. The Pacific, as yet, is free from these adverse conditions. The geographical distribution of island territory there, and the wholly possible acquirement of that which is essential, would seem to place the safeguard of sea command within the reach of the United States, to be grasped now, with the Hawaiian Islands, or, with their rejection, to be had again only by war and conquest.

OUR PARAMOUNT RIGHT IN THE NORTH PACIFIC.

The Pacific Ocean is an expanse of magnificent distances. Over the lands of no empire, the "barren foam" of no sea, can one traverse so many leagues without crossing the border, as upon its waters. Its area is two-fifths that of the whole surface of the globe and more than two and one-third times that of the Atlantic, with all its tributary seas. In the distribution of the land within its limits, the Pacific presents marked contrasts. Its southwestern area is a vast and tangled cluster of islets, islands, and archipelagoes, culminating in continental Australia; its eastern and northern portions are but an ocean desert, where "gloom the dark, broad seas" alone, save for such far oases as Hawaii.

Conquest, treaty, and an imperial purchase have given the United States a position, clearly paramount, on the northern Pacific. The boundaries of the Republic reach so far across these waters that—between eastern Maine at one extremity to the farthest of the Aleutians at the other—the geographic center of its territory lies westward of the Golden Gate. The Pacific States have a seaboard equal to that of the Gulf, and but one-tenth less than that of the Atlantic; while Alaska and the islands have a coast line more than eight-tenths that of all these three combined.

From the southern limit of California at 32° 28′ north, this ocean is, on its eastern and northern sides, bounded by American territory, continental or islandic, unbroken save by the short link of British Columbian coast, and reaching through nearly three-fourths the longitude from California to Japan.

It would seem, then, that the North Pacific is, in effect, an American Ocean, and that the United States should hold, in nature's fee simple, the title to a sphere of influence there, to a paramount control. This right is not tangible in law, nor recognizable by treaty, but it is yet inherent through the possession of an imperial territory which bounds, almost wholly, these northern waters, which looks to them for commercial outlet, and which, from them, is susceptible to attack in war.

THE STRATEGIC POSITION OF HAWAII.

If this long stretch of coast and archipelago be taken as a vast, although irregular, curve, struck when the world was new, we see the volcanic peaks which form the Hawaiian group, rising, out in the open ocean, at the center of this primeval circle. They stand directly south of Alaska's greater area and southwest of California, confronting and commanding both and all the intervening shore. Between them and these lands there lie no further islands to bridge a passage or give shelter or support to friend or foe. Alone, with neither peer nor rival, they watch, as nature's fortress of these seas.

There are twelve principal islands in the group, eight of which are inhabited. They lie between the parallels of 18° 50′ and 23° 5′ north, and the meridians of 154° 40′ and 161° 50′ west from Greenwich. Measuring roughly in longitude, they are distant from California about two-fifths the space between it and Japan and about one-third that between it and Hongkong. They lie nearly midway between Hongkong and Panama.

Jomini, a very high authority on the art of war, defines a position which is "a center of communication" as a geographical strategic point, adding that if through its possession control is given "of the center of the chief lines of communication" of the area to be fought for the position is "decisive." It would appear that with regard to the North Pacific and its boundaries this group fulfills signally these conditions.

There are now seven steamship lines crossing the Pacific from United States and British Columbian ports to China, Japan, and Australia, and to six of these Honolulu is a port of call. It is directly on the shortest line between British Columbia and Sydney, Australia, and on that between the Isthmus of Nicaragua and Shanghai, China, and is very near to those connecting British Columbia and Auckland, New Zealand, the Isthmus and Yokohama, and the Isthmus and Hongkong.

While Honolulu does not lie in the direct route from San Francisco to Yokohama, it is but 950 miles from it, thus flanking it at a distance which a swift cruiser of the *Columbia* class will traverse in less than forty-eight hours. As a whole, it may be said of Hawaii that it controls fully these vital lines of communication and answers in marked degree the requisites prescribed by Jomini for a decisive stragetic point, one, indeed, of far-reaching dominion as "the gateway and tollgate of the water roads to China, Japan, the Indies, the Orient," from North America and from the Isthmus, with, as well, the highway from Canada to Australasia.

It may be urged, however, that the ocean is but a trackless waste;

that, on its surface, lines of travel are unstinted in their course; that, with war, these great water routes would change. This in but a limited sense is true. Conditions of winds, of distances, of supplies, of trade, make laws, elastic in but small degree, which fix certain lines of passage on the sea, as on the land the centers of population and the conformation of the surface determine the great arteries of travel and traffic.

Peculiarly is this true of Hawaii's relation to the navigation of much of the Pacific area. The Hon. Lorin A. Thurston shows very clearly the commanding position of these islands when he says:

> In the whole Pacific Ocean, from the equator on the south to Alaska on the north, from the coast of China and Japan on the west to the American continent on the east, there is but one spot where a ton of coal, a pound of bread, or a gallon of water can be obtained by a passing vessel, and that spot is Hawaii.
>
> The immensity of this area of the earth's surface is comprehended by but few. The distance from Hongkong through Hawaii to Panama is 9,580 miles. This distance is as far as from San Francisco eastward across the continent, across the Atlantic, across the Mediterranean, and across Turkey to the boundary of Persia. The first supply station north of Hawaii is at Unalaska, in the Aleutian Islands, and the first similar station on the south is Tahiti, a French colony. The distance between Unalaska and Tahiti is 4,400 miles; as far as from the southern point of Greenland to the mouth of the Amazon River.

Honolulu would appear then to be, for these ocean highways, not a convenience merely, to be disregarded at will; but for the greater part of them a necessary port in peace, and for all a lion in the path if held in war by hostile hands.

Again, its distances to important harbors of the Pacific give proof of Hawaii's commanding position as a commercial and military center of prime importance. Its isolation on the north and east has been referred to; although scattered groups approach it on the west and south, it seems there also to be equally free from any which might rank as worthy rivals.

From San Francisco it is parted by 2,080 miles of sea, but little more than four days' steaming; and this distance forms, approximately, the radius of a great circle, within which it has no peer. On the circumference thus described, and at distances from Honolulu ranging between 2,000 and 2,400 miles, there are situated San Diego, San Francisco, Portland, Sitka, and Unalaska, harbors of the United States; Samoa, over which she has partial control; Esquimault, the fortified port of British Columbia; the Marshall Islands, annexed by Germany; the Gilbert group, lately acquired by Great Britain; and the French station of Tahiti. Just beyond the area, 2,700 miles from Honolulu, there appears Fiji, the nearest station of importance in British Australasia. From circumference to center of this vast circular expanse the sea is bare, except of lonely, infrequent islets of no value. Hawaii's sway there, her power to reach the fringing continent or island groups, with equal ease, for good or ill, is indisputable.

As to the large ports of Australasia and the Orient, at which in war a hostile fleet could rendezvous, and to a greater or less extent refit, it would appear from the following table that the distances between them and Honolulu exceed greatly, in most cases, the breadth of the Atlantic; and that from such possibly hostile points of military strength Hawaii is, if we except those of the American Continent, safer than New York:

	Miles.		Miles.
Yokohama, Japan	3,400	Sydney, Australia	4,500
Nagasaki, Japan	4,000	Hongkong, China	4,900
Vladivostok, Siberia	3,670	Shanghai, China	5,000
Auckland, New Zealand	3,850	Manila	5,000

Just here there may be noted the peculiar and extraordinary value of Hawaii to the defense of our Western coast. As has been shown, Honolulu is within easy distance of French, German, English, and Japanese stations on the Pacific; it lies, as well, but 2,100 miles from the United States shore. If either of these foreign nations held the islands its ships reaching Hawaii could take on supplies, and in five or six days thereafter could appear off California with ample fuel remaining for offensive operations or for retreat, if necessary, to their island base.

If, however, Hawaii be omitted from the problem, the situation changes wholly. Excluding those on the American continent, the foreign station nearest to our Pacific seaboard is that of the French at Tahiti, distance 3,600 miles; but this port is so far from home and supports as to prohibit its use, effectively, as a naval base for attack on this coast. There is no other over-sea station so near as is Tahiti, those of Japan, China, Great Britain, Russia, and Spain being from 4,500 to 5,500 miles away.

Now, for a descent upon our western territory a hostile fleet must comprise battle ships and cruisers of the first rank. Taking British vessels as typical of the best foreign ships for over-sea work, we find that the *Royal Sovereign* battle ship, 14,150 tons, and the *Diadem*, first-class cruiser, 11,000 tons, have each a coal endurance of but 5,000 miles at a speed of 10 knots.

In other words, of the ships starting from these distant stations—without access, en route, to Hawaii—steaming at most moderate speed, and unopposed upon the sea, only those from the nearest ports could reach California waters, and these only with fuel for about 500 miles more at 10 knots, with limited capacity for attack, none whatever for retreat, and with the surety of meeting a fully equipped fleet of the United States.

The use of steam colliers to supply a fleet at sea would be a most effective aid in war; but so far this seems not fully practicable. It is true that, during the maneuvers of 1893, a British squadron was partially coaled in rough waters at Torboy from supply vessels fitted with the Temperley transporter, and that, two years later, the French armorclad *Richelieu* also coaled partially at sea; but no trial on an extended scale has yet been made of these appliances, and they have not won full confidence. Even granting their efficiency in the transfer from collier to ironclad, such supply vessels must run the gauntlet of hostile cruisers; reaching the sea rendezvous at the time set will be uncertain; and, furthermore, the bunker arrangements of warships will make impossible the stowing, in a seaway, of a full supply, even if it were placed upon their decks.

Under these conditions—as to distance, fuel, and Hawaii—hostile operations from these stations on this coast, at this stage in marine propulsion, would be midsummer madness. If, then, there were no Hawaii—if it could be blotted wholly from the map—the Pacific coast would be at this time entirely safe from transoceanic attack. Since these islands are, however, a permanent feature of the sea-scape, this security can be had only by their transfer to the United States and such guarding thereafter as will prevent their use, in war, by any foe.

With regard to the foreign station at Esquimault, British Columbia, it need only be said that it is as remote from trans-Pacific attack or reinforcement as is our western shore from foes beyond the sea. Honolulu, as a port of call, is necessary to complete its naval communications. If, however, Hawaii shall become American territory, the

conditions previously recited, as to fuel and distance, will prevent the naval support from Australia or Hongkong of this port in the seemingly most improbable event of war between England and the United States. Its resources, for attack or for defense, would then come only from the continent and from such warships as might lie under its guns.

From another view point Hawaii is worthy of consideration. For all purposes of war the British practically hold the Suez Canal, the vital link in the pathway to their imperial dominions in the East. Indeed, in crushing Arabi-Bey they seized this waterway and closed it to commerce for a time, asserting thus a right inherent through the possession of a vast domain to which the canal forms the immediate approach in war.

Of perhaps greater importance, strategically, to the United States will be that other isthmian passage, whose cutting seems now a work of the near future. A President and a soldier, Rutherford B. Hayes, has said:

> An interoceanic canal across the American isthmus will essentially change the geographical relations between the Atlantic and Pacific coasts of the United States, and between the United States and the rest of the world. * * * Our merely commercial interest in it is greater than that of all other countries; while its relation to our power and prosperity as a nation, to our means of defense, our unity, peace, and safety, are matters of paramount concern to the people of the United States.

In his monograph, "The Nicaraguan Canal in its Military Aspect," Captain Scriven, U. S. A., says:

> We may obtain the preponderance on either seaboard if we have but a short cut across the Isthmus. The strategic value of the canal in the defense of our coasts thus becomes evident at once. The actual saving of distance between New York and San Francisco will be about 9,894 miles. From New York to San Francisco via the Nicaragua Canal the distance is 4,960 miles; New Orleans to San Francisco by canal, 4,047 miles. Thus by means of it our fleets could be transferred from the Pacific ports to those of the Atlantic with 10,000 miles less steaming than is now the case, and the smaller navy concentrated at a point threatened by foreign attack probably before the blow could be delivered—an impossibility with 10,000 miles of sea travel along coasts where coal could perhaps not be obtained in war, added to the 5,000 miles of steaming between New York and San Francisco necessary even if a canal were constructed.
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> In short, a canal under United States control will give all the advantage to the defense that is to be derived from maneuvering on inside lines, and will, in addition, give the probability of naval stations and the certainty of coaling stations on the road of ships from the Pacific to the Atlantic seaboard. * * * With a power to throw a preponderating force on either seaboard, it is evident that the United States may not only defend her own coasts effectively, but may be enabled to so concentrate her naval strength as to threaten any point north or south on the coast of either ocean or in the West Indies without weakening too greatly her own coast protection, and thus divert a large force of hostile ships by the necessity of defending such stations as Halifax, Esquimault, Bermuda, Havana, or Jamaica, and of guarding merchant shipping in western waters.

In the Mediterranean, midway between Port Said and Gibraltar, there stands Malta, won in 1798 from the Knights of St. John through the treachery of Bonaparte, captured two years later by the British, and confirmed to them by the Congress of Vienna. In its massive fortifications and its central position on the line of communication from Egypt to Gibraltar this mid-Mediterranean outpost is vital to British control of isthmian transit.

As with Malta and Suez, so with Honolulu and Nicaragua. Hawaii is, with regard to the Orient, the mid-Pacific outpost of the American canal, standing halfway between the Isthmus and the East, on or near every line of travel between these points, and with no island of military importance even approaching its communications with the

future crossroads of the Western world. In view of these considerations, there may well be questioned the wisdom of investing millions of American money, national or private, in this waterway, if the Republic shall not hold, as well, its central Pacific outpost.

It will not serve to say that we shall have a sea station on the Galapagos Islands. Theirs is a flanking position only as to the Oriental highway; they are neither central nor on lines of communication; they are, relatively, near the coast and under its influence; and Hawaii and the canal will bear to them largely the relation held by Malta and Suez to Cyprus—that somewhat overrated prize which Disraeli, in theatrical pomp, brought as a token of "peace with honor" from Berlin.

Neither will it avail to urge that Hawaii's distance to the Isthmus, 4,200 miles, will be prohibitory of military operations from it against the canal. That is practically true now; but a wise people builds for the future, for its sons of the coming years, and the swift advance that half a century has seen in the speed of communication over sea makes it temerity indeed to say what, in the annihilation of ocean distance, the years have in store.

In the utilization of the mobile defenses of the United States, there is no element which approaches in importance the isthmian waterway. Without it, the fleet of one coast is unavailable for the other; with it every naval gun may be turned upon the foe, whether he shall come from east or west. If, however, we shall desire to control fully the coming canal, the possession of Hawaii would seem to be, militarily, an essential.

In reviewing what has been said herein as to the strategic position of Hawaii, there may be noted that it is the central and only important occupant of a vast circle of sea, on whose circumference lie the Western and Alaskan ports of the United States and the nearest foreign stations, and that it has, therefore, access, equally easy to all, for good or ill; that it is so far distant from the larger trans-Pacific ports of military strength as to make it safer, in this respect, than is New York; that, through its nearness, relatively, to the United States, it is the only sea base from which our Western coast can be attacked; that from the equator to Alaska, and from China and Japan to the American shore, it is the only port of supply; that it dominates the principal lines of communication on the Pacific, being on, near, or strongly flanking those from Canada and our Western coast to British Australasia and the East, and from the Isthmus to the Orient; that it is now a port of call for six of the seven trans-Pacific steamship lines; and, finally, that it is a mid-oceanic outpost of the proposed Nicaraguan Canal, as important, in degree, with regard to the far East as Malta is to Suez. It may safely be said that on our globe there are no islands whose strategic position, with regard to the area commanded, equals that of Hawaii.

HAWAII'S MILITARY STRENGTH.

Position alone will not, however, constitute an ocean fortress. Reduced to its elements, mere position might be represented, in a shallow sea, by an anchored buoy. There must be as well the capacity for defense, either existing naturally or supplied, since war is not fought with strategic points or with even fortresses, but by their aid in the support—the supply and, if need be, shelter—of the "far-flung battle line." On the sea that battle line is naval, and the strength of the ocean fortress is measured largely, although not wholly, by its power to guard a fleet against a fleet.

As has been noted, the Hawaiian Islands form an archipelago which

extends east and west 1,200 miles, the eight inhabited islands covering 300 miles at the eastern extremity. Of these islands, one, Oahu, far exceeds in importance the rest, since on its coast there are situated Honolulu, the only good commercial port, and Pearl Harbor, the only place capable of sheltering a fleet in the entire group. To Oahu, then, the inquiry as to the military strength of the islands must necessarily be restricted.

Varying opinions have been expressed as to the practicability of fortifying Honolulu fully against attack by sea. There seems to be the possibility of a strong defense through heavy batteries mounted on the hills in the rear, and perhaps on the reef a mile in front of vessel moorings. Guns so placed would command a sweep of sea of at least 90°, embracing the approaches to the port. The practicability of wholly effective emplacements, especially with regard to the reef batteries, has, however, been questioned. In 1872 Generals Schofield and Alexander, U. S. A., reported to the Secretary of War with regard to the conditions then that "an enemy could take up his position outside of the entrance to the harbor and command the entire anchorage, as well as the town of Honolulu itself."

Pearl Harbor lies 7 miles to the westward of Honolulu. It is an oblong bay or estuary, 6 miles long and 3 wide, with its longer axis parallel to the coast; entered from the sea through a narrow strait, which is nearly 3 miles long, of varying width and about three-eighths of a mile in breadth at the narrowest point. The sea line of the harbor is the encircling coral reef of the island, through which, however, opposite the passage, there is a break, blocked for the present by a bar of coral sand.

Two peninsulas, extending seaward from the back of the harbor, and an island within it, divide the bay into three parts. Both island and peninsulas command the strait, partially or wholly, one of the peninsulas reaching across the bay and into its inner mouth. Inside the bar the passage is from 7 to 10 fathoms deep; within the harbor the depth varies from 5 to 7 fathoms. There are 30 miles of water front, remarkable in this, that its walls approach the perpendicular. "In other words, the largest of vessels could almost be moored broadside against this beach (of Puuloa). Deep water, close to the shore, is a characteristic of the greater portion of Pearl Harbor," says Lieut. W. M. Wood, U. S. N., who made extensive surveys there.

Of further features of the bay and its environment, a Senator, a recent visitor to the islands, says:

> Two hundred sail could easily be moored to the shores, in positions of perfect safety. Deep water is found all along the shores of the bay, all of which are perpendicular walls of stone. They could scarcely be more regular and useful if they had been built by skilled workmen.
>
> On the side of the bay, next to Honolulu, hills from the seacoast are from 100 to 500 feet high. Guns on these elevations would easily command the entrance to both harbors, while within Pearl Harbor and back of Honolulu the points available for harbor defense could scarcely be more advantageous. * * * A vessel can be moored at almost any place along miles of shore line and will be out of sight from sea, except the toprigging. The largest ship can easily turn in the narrowest part; while a dry dock can be constructed at a low cost at many places in Pearl Harbor, with walls excavated in the rock.

With regard to a channel through the bar, Rear Admiral John G. Walker, U. S. N., has reported:

> The examination shows conclusively that there is a channel through the reef at Pearl Harbor, filled with loose coral sand; and that a suction dredge can rapidly and cheaply open a way for the largest ships. * * * The channel is practically straight and the distance between the walls of live coral is at no point less than 300 feet.

Lieut. W. M. Wood, who, in 1894, surveyed this proposed channel, estimates the cost of a cut 250 feet wide, with a depth of 30 feet at mean low water and of widening and deepening the channel inside, at $105,000.

Generals Schofield and Alexander, in the report referred to previously, stated that—

> With one exception, there is no harbor on the islands that can be made to satisfy all of the conditions necessary for a harbor of refuge in time of war. This is the harbor of Ewa, or Pearl River. * * * It could be completely defended by inexpensive batteries on either or both shores, firing across a narrow channel or entrance. Its waters are deep enough for the largest vessels of war, and its lochs, particularly around Rabbit Island, are spacious enough for a large number of vessels to ride at anchor in perfect security against all storms. Its shores are suitable for building proper establishments for sheltering the necessary supplies for a naval establishment, such as magazines of ammunition, provisions, coal, spars, rigging, etc., while the Island of Oahu, upon which it is situated, could furnish fresh provisions, meats, fruits, and vegetables in large quantities.

Such, then, is Pearl Harbor, to which, on November 9, 1887, the King of the Hawaiian Islands granted the United States the exclusive right of entrance, of maintaining there "a coaling and repair station for the use of vessels of the United States," and of improving the entrance to its anchorage. In reviewing the characteristics of this noble bay, which fit it for a naval station without superior on any sea, there may be noted:

Its extent: 6 miles long and 3 broad, both in the extreme; with 30 miles of water front, and large enough to hold with ease the entire navy of Great Britain. *Its depth of water:* 20 fathoms in some parts, but generally 5 to 7, sufficient for the heaviest modern ships. *Its perpendicular walls:* Enabling ships to be moored almost along the shore. *Its sheltered position:* Shielded by hills 100 to 500 feet high, ships may ride in security from any storm; they may be, but for their mastheads, invisible from sea, and if moored to the inner shore will be 8 miles at least from the reef and from any foe. *Its capacity for defense:* Against land attack, by batteries on the neighboring hills; against that from sea, by an entrance protected with ease—a contracted strait, 3 miles long, three-eighths of a mile wide at the narrowest point, covered by the cross fire of batteries at its outer mouth, exposed to a raking fire from the peninsula, piercing its inner entrance, and sown, if need be, with submarine mines. *Its facilities:* An ample water supply; sites for dry docks in the solid rock of the shore; spaces for barracks, magazines, and storehouses on land within the bay. *Its exterior resources:* Distant but 7 miles from a city of 30,000 inhabitants and on an island over four and one-half times the size of Malta, with a consequent supply of meat, vegetables, and fruits in abundance.

It would seem that nature has given military strength with unsparing hand to Pearl Harbor, which, in a strategic sense, is really Hawaii, and, in its unparalleled position of command, is essentially the "key of the Northern Pacific."

HAWAII'S MILITARY RESOURCES.

In measuring the power of a naval station there is linked with the question of military strength—although not an essential part of it, as Gibraltar so conspicuously shows—the further inquiry as to its resources, its capacity for self-support, if cut off from relief. Especially is this a problem for an island depot. It has been well said that "every place depending on the sea for supplies must fall to the power in command of the sea."

Coal and timber for ship needs do not exist in Hawaii, and with them there must be supplied ammunition, the metals, and naval stores in variety. It is to be observed also that the island products are mainly agricultural; that manufacturing is, almost wholly, a missing industry.

However, modern war, by sea at least, is far too swift for long investments. The "Great Siege" of Gibraltar—though military as well as naval—will never again find its parallel in duration. The question of resources restricts itself, then, to food supplies, and—in the case of an island such as Oahu, of which the naval station forms but a part—to population, since the latter, with complete blockade, must be fed, and since, also, it may furnish a militia to aid in repelling a descent upon the land.

Oahu is not a large island, being but 46 miles long and 25 broad, with an area of 530 square miles; it is parted from its nearest neighbor by a channel 23 miles in width, one and one-half times that of Gibraltar Straits. Crete, in the Mediterranean, is more than six times Oahu's size; and in view of the recent blockading operations of the Powers there, the possibility of Oahu's investment must be admitted. On the other hand, as will be later shown herein, the probability of its effective blockade is remote; and therefore the resources of a fleet and garrison at Pearl Harbor may fairly be considered as drawn from all the inhabited islands of the group.

The total area of these inhabited islands is about 6,000 square miles, or over three-fourths that of the State of Massachusetts. Only a moderate proportion, however, of the land is capable of supporting a dense population, the interior parts being mountainous. The soil, a decomposed lava, is fertile, but in many districts requires irrigation from streams or wells. The principal products are sugar, rice, coffee, and tropical fruits, although corn, wheat, potatoes, and leguminous crops can be raised. The climate is mild and equable, 56° and 88° being the winter and summer extremes of temperature at sea level.

The population, according to the census of 1896, is 109,020, of which 28 per cent are Hawaiians and 22 per cent are Americans or Europeans, by birth or descent, 15,000 being Portuguese. The remainder comprises Asiatics and people of mixed blood.

As to the population of the future, it can not be doubted that, with annexation by the United States and under its strong and stable Government, there will be attraction for the investment of capital which has not existed in the past. Then, doubtless, the internal resources of the group will be fully developed and its importance be increased largely as a naval post, as a center of supplies for a growing merchant marine, and in some degree as a market of exchange for the commodities of Oceanica and the Asian and American littorals. This development will turn to these islands a steadily rising immigration of Americans and Europeans.

With regarp to the possibility of supporting—from native resources if need be—these future inhabitants, there should be recalled the fact that little more than a century ago, when the group was discovered by Captain Cook, its population was estimated at 400,000; and, further, Mr. W. D. Alexander, surveyor-general, states that upon the products of the soil probably five times the present number (109,000) could be supported. By other observers this estimate is doubled.

Of the native population probably 50 per cent, or 15,000, are males, and these should form a factor of importance in weighing Hawaii's value as a naval station—for a time only, it is sad to say, since this is a

fast-dying race. Our whalers of the old days found the Hawaiian the best boatman and sailor in the world—traits transmitted from forefathers, who, if tradition be true, were bold and skillful navigators, steering by the stars to distant groups. In such degree does the Hawaiian love the sea that in 1850 the island government passed a law restricting young men from leaving its territory, since the charms of seafaring were robbing the country of its people.

In summing up Hawaii's military resources in inhabitants and food products, we find in a territory about three-fourths the size of Massachusetts, with a climate well suited to the Anglo-Saxon, a population of but 109,000, of which 22,000 are Americans or Europeans, 31,000 are Hawaiians, and the remainder are of Asian or mixed blood. It appears, further, that the islands are capable of supporting from half a million to double that number, and that from the Hawaiians there may be drawn, for the present at least, a considerable force of men especially fitted for service on the sea. Hawaii's capacity for self-support, if cut off for a time from relief, is manifest, and there seems clear, also, its power to aid in a considerable degree in repelling descent upon its territory.

HAWAII AS THE GIBRALTAR OF THE PACIFIC.

Hawaii has been called the "Gibraltar of the Pacific," but the comparison with the lost rock of Spain is to some extent misleading. That Gibraltar holds a position of extraordinary strategic value is of course beyond question. On a narrow strait and forming in part the very gateway of the Mediterranean, it dominates all trade to and from the Atlantic and this inland sea, including the vast traffic on the modern highway to the East.

In war it will part the coasts, the ports, and the fleets of Spain, and will exercise the same important function with regard to France, although in less degree, since it is relatively far from her shores. Again, its position enables it to watch, and to some extent obstruct, the egress to the Atlantic of the ships of Italy, Austria, and Turkey, with as well those of Russia's Black Sea squadron when the latter shall decide to break the treaty bonds of the Bosporus.

In military strength it is—purely as a fortress—without superior, resembling an island so nearly that attack by land is of trifling avail, and indeed is wholly impossible if there be a defensive naval force in the bay. When Sir George Rooke took it in 1704, his success was due only to the sudden rush of a powerful squadron carrying nearly 10,000 men, 1,800 of whom were troops, against a most inefficient garrison, but 150 in number, and unsupported from the sea.

Later, during the "Great Siege," begun in 1779 and lasting for more than three and a half years, it was held successfully by a force which did not exceed 7,000 men, although the assaults culminated in the simultaneous attack of land batteries comprising 246 guns and mortars, supported by an army of 40,000 men, and of the combined fleets of France and Spain, numbering 47 sail of the line, with many smaller vessels.

When, however, there is considered the cardinal function of a sea fortress—its ability to guard fully a fleet—Gibraltar is found wanting. The rock is a bold headland, forming about one-half the eastern side of a bay but 8 miles long and 5 broad, the remainder of whose shores—east, north and west—is Spanish territory. The anchorage is far from good, since the bay has a widely gaping mouth and its waters are exposed to the strong current setting in from the straits, to the south-

west wind for which the latter form a funnel, and to the terrible gusts of the Levanter. Protection for a fleet does not exist naturally, and is possible artificially in but limited degree, save from the batteries above them. The ships cluster at the base of the great rock like chicks huddling about a wingless hen.

As to natural military resources, there are none. With an adequate garrison and munitions of war Gibraltar has therefore but one danger—famine—whose gaunt specter has hovered so often above the rock. In the absence of relief it must, if food fail, fall to any hostile power which may command the sea. The grave necessity for extreme restriction of all population save that essential to the wants of the garrison is shown by a series of regulations which refuse to recognize the right of residence, with as well the right of admission to aliens, and which order every possible prevention of increase in noneffective population.

The political and commercial conditions of this day may make Hawaii's strategic position of less value than that of Gibraltar; but the future may change this. As to other requisites of a naval station, it need only be said that it is capable of guarding, not a fleet, but a whole navy, in a position which may easily be made unassailable from the sea, and which, properly fortified, will be also impregnable, probably, to land attack; and further, that its natural resources, for military ends, seem abundant, giving it ample means of self-support if cut off from friendly aid.

HAWAII'S FUNCTIONS IN WAR.

If Hawaii shall be annexed by the United States, the conclusion is inevitable that, in the event of maritime war being waged against us, the island group will be the scene of the earliest, perhaps the only, conflict on Pacific waters. It will be the first line of defense of Pacific and Alaskan shores, the far-flung outpost, on guard, not in our own nor neutral territory, but in that "No Man's Land," the sea. The danger and the glory of this advanced position will lie in this, that its garrison and fleet must meet the first rush of attack, that its people, in their vicarious suffering, must shield those of the real objective, the continental shore.

The fact that Hawaii's situation and environment make it the only sea base from which that shore can be assailed has been made clear herein. In this regard the Atlantic offers no parallel. To reproduce on the Eastern coast the safeguarding which Hawaii's annexation will give the West the United States would need to acquire many of the Atlantic islands and much of that ocean's farther shore.

From the very beginnings of naval warfare, while laws for its conduct were yet undreamed of, there seems to have been an instinctive desire to hold near the land to be assailed a naval base, to have there sheltered waters where vessels might refit to sally forth again. Thus, in our civil war, Port Royal served as the home harbor of the ships which bombarded or blockaded ports to north and south of it. Disregard of this primary requirement as to a base but invites disaster. Indeed, in history there seems no record of successful attack made against worthy defense from a remote base of operations. So, if Hawaii shall enter the Union and in an extreme of national unwisdom shall be left unfortified and unguarded, the aim of any Pacific force will be, first, to seize its superb war harbor and then, thus intrenched, to attack the coast at will.

On the other hand, if the United States shall utilize the natural

strength of the group, and if, in doubtful days, there shall be stationed in its waters a fleet of fighting strength, adequately equipped with battle ships—the representatives in this age of Torrington's ships, "fit to lie in a line"—a hostile force seeking the Pacific coast will be subject to one of the primary laws of territorial attack, namely, that to secure success the assailant's command of the sea must previously be assured. "Command," in such case, means at least "a reasonable probability that no naval force, capable of interfering by sea, can make its appearance before the completion of all the objects named in the attack."

This command of the sea could not be attained by the enemy until the Hawaiian fleet was vanquished or blockaded, since the coast of the United States is within easy range of that fleet. Such conditions seem improbable; the unwisdom of stationing any but a strong force in Hawaii at critical times will be apparent, and that force will operate from a nearby base against foes which have come far to find it. The stupendous victory of Howard, Drake, and Hawkins over the Spanish Armada, the annihilation of the French at the battle of the Nile, and the crushing defeat of the Italian Admiral Persano at Lissa during the Austro-Italian war of 1866 are conspicuous, often-cited, examples of the disaster which follows a violation of the law that territorial attack must be preceded by control of the sea. The essence, however, of Hawaii's defensive value to the United States is its position as the only sea base from which the coast can be assailed. With that sea base securely guarded, the control of the sea, under present conditions of fuel and distance on the Pacific, is secondary, as far as Hawaii is concerned, although in itself important.

It may be urged that a United States fleet on its own coast will control adjacent waters, or at least make uncertain hostile control of them, and that therefore Hawaii's aid in restricting territorial attack is not essential. This is quite true, so far as the range and fighting strength of that fleet extend. It must be remembered, however, that a coast fleet will have a coast base, and that without the islands the coast—not distant Hawaii—will meet the loss and suffering of naval war. Again, that coast is widely extended, it is not easly guarded throughout save by a great fleet, and the enemy's force may take war's chances—as in the capture of Gibraltar—and make a sudden raid before advancing to meet the defense, while with Hawaii there may be concentration of force, the minimum of watching, and a sea whose command must be battled for by any foe.

Again, without Hawaii there will be but one great line of defense afloat; with it there will be two. Lastly, and most important by far, the islands in the grip of a foreign nation, with adequate force there, will make the command of the north Pacific doubtful for all time, a thing for which in war the United States must fight. With Hawaii that command is ours. We have that possession, which is so many points of the law.

As the guard port for a naval force of proper strength and composition, Hawaii will become the watchtower of the northern Pacific. When war clouds lower, swift cruisers, "the eyes of the fleet," radiating from Pearl Harbor, will scour the seas in any quarter from which an enemy threatens, and from these scouts word will come quickly to the fighting fleets, at Hawaii or at San Francisco, of the force and course of any approaching foe.

It is not assumed that even a most vigilant watch of this kind could cover, with entire effectiveness, so great an expanse of sea, but it is clear that from Hawaii the most practicable, and, considering the area,

a most valuable, system of watch and ward may be maintained. If there were established near Unalaska, directly north of Hawaii, a fortified port at which an American squadron could rendezvous in safety, the western and southern limits of the great quadrant of sea, whose center is Hawaii and which confronts our Alaskan and Western shores, could be traversed by these swift messengers proceeding southward from Unalaska and westward from San Francisco, meeting and passing in mid ocean, within forty-eight hours from the start, cruisers on similar duty from Hawaii. A moderate increase above the bare essentials noted in this scouting squadron would make a boundary patrol of unquestionable value.

During the reign of Queen Elizabeth the French Court commissioned the first privateers of naval history to prey on England's merchant marine. The Queen retorted in kind; and, from those early years, commerce destroying assumed a place in naval war. Later, the guerre de course, as the French term it, was made, for them, famous for all time by their mighty leaders in this form of attack—Forbin, Jean Bart, Duguay-Frouin, and those who followed. To this day this element of warfare has, perhaps, its strongest advocates in France.

For such work, cruisers must have extreme speed; armament and armor are sacrificed to propelling machinery; militarily, therefore, they are but less weak than the merchantmen they seek. Again, to save weight for machinery, they are often unsheathed, thus requiring frequent docking to cleanse their hulls. Finally, great speed implies large coal consumption. Their weakness against fighting ships, their necessities as to frequent dockings and renewal of coal supply, all point to near-by guarded ports of refuge, as essential for their success on any field.

In this, again, Pearl Harbor's strength and central situation will give it extraordinary value for the power which holds it when war shall come on the Pacific. As has been shown, it is directly on, or in a strong position to flank, every trade route in the northern section of that ocean. Cruisers from it can speed with ease over every ocean highway there, and still be within ready reach of refuge, of docking, and of fuel.

In the event of foreign war, perhaps the most formidable problem which will confront the United States—after providing for defense—will be its inability to make its power felt abroad, except in a moral sense. Owing to the lack of coaling stations, our fleet, practically, has a string tied to it; it is like that toy of childhood, the returning ball; it may proceed to sea until half its coal is spent, and then with the remainder it must return to port to refill for a second limited sally.

It should be borne in mind, therefore, that possession of Hawaii will advance our outposts by 2,000 miles toward Asian shores; that by this distance there will be increased the range of the fleet in war against any over-sea Pacific foe. With this it may be well, too, to recall that in 1867 the United States acquired Midway Island, 1,200 miles to the westward of Honolulu, with the intention of establishing a naval station there. The cost of such a port might be large, but the future may justify the wisdom of the expenditure, since if Hawaii be annexed Midway could be readily supported from Pearl Harbor, and the trans-Pacific effectiveness of our fleet would be increased by 1,200 miles more, thus bridging, largely, that wide ocean for warfare over sea.

The serious dangers which may in war beset Hawaii as American territory are the interruption of its communications with the United States and the blockade of the cost of Oahu, the island on which Pearl

Harbor and Honolulu are situated. Communications are both the arteries and the nerves of strategy, since through them not only is a distant force supported but its action is controlled. Hawaii, it is true, is 2,100 miles from the continent; but since 1842 England has held Hongkong, an island distant from her by half a world, parted from an alien and unfriendly shore by but a narrow pass, and separated by 1,500 miles of sea from Singapore, the nearest British station, a port which at no time has had imposing strength, military or naval.

With annexation and war at any time thereafter, the maintenance of communication with Hawaii will therefore present no problems either novel or of surpassing difficulty. There will be an ocean cable to guard, reinforcements to forward, supply ships to convoy; but the road is straight, it is flanked by no island foe, the distance is not excessive, and the question becomes one only of adequate force and proper vigilance in sea patrol.

With regard to the possible blockade of Oahu, it must be admitted that on the neighboring island of Hawaii, within twelve or fifteen hours of easy steaming, there is situated the port of Hilo, an open bay 7½ miles long and 3 wide, exposed to the northeast trades, but having sheltered anchorage in 5 to 7 fathoms of water. This harbor would serve as that indispensable requisite of blockade, a neighboring base, where a part of the force may lie ready to relieve the ships on guard, and where the latter may retire for repairs, for supplies, and for that rest which will be vital to the efficiency of officers and men subjected while on watch to the most intense strain, bodily and mental, which a naval force must meet.

On the other hand, precipitous hills rise back of Hilo, and it may be fairly fortified for defense. A hostile fleet to reach it must traverse a wide stretch of ocean and will arrive with hulls foul and sea worn. Its supplies must follow the same path. And before Hilo is taken the enemy must meet a fleet—strong or weak, as the case may be, but fully equipped—operating from the impregnable base of Pearl Harbor. Under these conditions the establishment of the blockade of Oahu would seem most improbable, except with overwhelming force.

Even conceding the possibility of temporary blockade, through surprise or otherwise, it could hardly be enduring if there be a torpedo squadron in Pearl Harbor. In the opinion of a growing body of naval men, the battle ship, which must form the backbone of a blockading force, is no match for the torpedo vessel, which is preeminently the weapon of the imprisoned fleet. The armorclad may sink one or two of these small and deadly craft, but she can not repel the attack of a swarm of them in the gloom of a moonless night or the gray of an early dawn.

If Hawaii shall become American territory, it would appear that Pearl Harbor's functions, offensive and defensive, in war on the Pacific, will be of grave importance. As our most distant outpost, in the foremost line of defense, it will meet the first assault and may shield the continental coast from the suffering of war; as a central and impregnable base, it will enable an adequate fleet to command the seas which face our Western and Alaskan shores; as the watchtower of the northern Pacific, it will give timely warning of the coming of any foe; it will dominate all ocean highways from Alaska to the equator, and give unsurpassed facilities for the attack and defense of commerce; and, lastly, it will advance our outposts by 2,000 miles toward Asian shores, increasing by that distance the range of our fleet in war beyond the sea.

"Peaceful, gain-loving," a critic has said of the people of the United States. Nay, rather, the words should be "slow to anger," and gain-spending in any righteous cause! It was in the year 1832 that Andrew Jackson issued his nullification proclamation; but not until 1861, nearly a generation later, was there begun the armed conflict which was to end those differences between brave and honest men, both of the North and South, of which his stirring words were the first official sign. That conflict, too, was the great war of modern times—lavish in blood, in treasure, in mourning homes, in fair Southern fields laid waste. One needs but to recall the memories of Valley Forge and New Orleans, of Buena Vista and Gettysburg, to know that beneath the nation's seeming unconcern, its laughter, its eager, rushing life, there lies a pride which, though tempered with much modern common sense, is yet stern and haughty; which does not pale before that of any people on whose broad banner the sun has ever shone.

The military value of Hawaii in defense has been set forth herein; yet, to a nation which, not by the right of the stronger, but "with malice toward none," has won its exalted place, and which may fitly glory in its marvelous advancement, are there not other reasons than defense, than mere territorial expansion, for the acquirement of these distant islands? Far-sighted statesmen have given the little England of the old time a greater Britain now. If our leaders shall but have clear vision and wise daring, what may not a golden future have in store for the greater United States of the centuries that are to come?

It is now nearly three hundred years since, from a dark dungeon in the Tower, Sir Walter Raleigh, one of the most splendid figures of a brilliant time, looked down the ages with unstinted gaze, and marked out the path on which a maritime State shall find its power and its glory.

"For whosoever commands the sea," he said, "commands the trade; whosoever commands the trade of the world, commands the riches of the world, and consequently the world itself."

Raleigh's thought stirs British statesmen at this hour. That is the inspiration which gives the island empire its enormous merchant marine; its stations guarding every ocean highway and carrying England's morning drumbeat round the world; its mighty war fleets, grim and threatening, on every sea.

What of the United States? It is the greatest producer of the nations of the earth. After feeding 70 millions of its own and supplying its own whirring spindles, it has a vast surplus to send abroad, of grain from the West, meat from the plains, and cotton from the South. Its manufacturing facilities, too, are unequaled in the amount and character of machinery, and its export of manufactured products increases year by year. The order of Scotch carpenters has just boycotted millwork from the United States, and the enmity of English machinists against American tools and tool-making machines has produced a most serious labor crisis. Again, the vast wealth of the United States makes it a consumer as well as a producer; it has a market that the world strives for and which takes much from other lands.

On the path of national development, such a surplus, such exports, such imports point, with unerring hand, to a merchant marine for the carriage of our sales and purchases, to sea stations for the supply and refuge of that shipping, and to a guarding fleet, the watchman of commerce on the ocean. Yet of these the United States has but the fleet,

and that of limited power for defense alone. The cost of the civil war seems enormous; but, in freight and passenger tolls and in the profits of the shipbuilders employed for its transoceanic needs, the nation is now paying into foreign purses 300 million dollars a year—nearly half the average cost per annum of that war during the four years of its existence.

Long ago Baron von Humboldt predicted that the commerce of the Pacific would in time rival that of the Atlantic. Later, Thomas H. Benton declared that "the dominion and empire of the world lay along the route to the Indies and with the country which controlled the commerce over it," and that road stretches broad and clear across the Pacific's wide expanse. Later still, William H. Seward said that the commercial and political importance of the Atlantic would ultimately fade before that of the Pacific; and the great Secretary mated his words with deeds in the purchase of the imperial territory of Alaska.

The Pacific's sleep is ended. On its eastern boundary the swift growth of the Western States of the Union, the finding of gold in Alaska, and the completion of the Canadian Pacific Railway, all mark the awakening. To the westward Japan has flashed like a meteor into the international sky, Russia has become a Pacific power, and China and Korea blink, sleepy-eyed, at the rising sun.

The distant islands have been seized from the equator to Australia, and above the uttermost of them, if it be of possible value commercially or strategically, there floats the ensign of some European power. "More than one-half the population of the world is in countries fronting the Pacific and Indian oceans," says the Hon. John R. Procter, and he estimates the foreign commerce of these countries, excluding North America, at over 2½ billions of dollars per year.

Here, then, in Hawaii and on the Pacific, is the opportunity of a proud, aspiring nation; not in feeding the land hunger of mere territorial aggrandizement, but in following a noble pathway of commercial expansion. The islands must soon go to some strong power. They have been held so long for America only by the unconquerable pluck of Americans. The Hawaiian people, the gentle race of reef and palm, is fading fast. Their lands must fall "to unlineal hands, no sons of theirs succeeding."

Will the United States, moved by what John W. Foster stigmatizes as a spirit of "national self-abnegation," refuse a gift, which, in his wise foreknowledge, James G. Blaine descried for the nation as "the key to the dominion of the American Pacific?"

In glowing words Murat Halstead has said:

> Once the Alleghanies were our western horizon; but we have crossed the space that divided the discoveries of Columbus from the lands of his dreams, where the East and the West are blended, like sea and sky, in the boundless blue of the waters and the air. Shall we retreat when our colors stream and shine in the zenith of the arch under which is our planet's path?

THE ANNEXATION OF HAWAII.

Recent events in the history of lands bordering the Pacific Ocean give added strength to the strategic reasons favoring the annexation of Hawaii, which have existed almost since the United States was a nation and which have had full force since the conquest and purchase of California.

To the westward, the acquisition by Germany of a commanding position on the Shantung promontory; the rumored desire for Hainan by

another government; with the occupation, since 1842, of Hongkong by the British, all point to the seemingly inevitable Europeanizing of the long littoral of China. Northward of that empire, Russia marches steadily on; pushing her Siberian railway to completion; extending her already vast resources and strength at Vladivostock; wintering her fleet at Port Arthur; and apparently entering into the affairs, domestic and foreign, of the Korean peninsula. The fleet of Japan, too, has had, and still has, phenomenal growth; she has made Formosa her territory; and, if her new role as the England of the East be adequately filled, other island territory may fall to her before the disturbed balance of power in the Orient shall cease to oscillate and shall settle into quiet for a time.

In place, then, of facing China, peaceful and in war inert, with no force to dispatch far afield by sea or land, and Japan, eager, brilliant, but yet young and weak, there will presently confront the United States on its western as well as its eastern shore the powers of Europe, with their relatively large fleets and home reserves, established not not only in the Far East, but in many of the nearer Pacific islands, the acquisition of which in these later years has been not a "blind grab for territory," but in pursuit of definite strategic aims. To these forces on the west there must be added also that of the new Japan, whose navy will soon surpass our own in fighting power.

It is true that we are wholly at peace with these nations, and that since the United States desires no Asiatic territory, but is interested only in the full maintenance of its treaty rights with Eastern peoples, there would seem to be no probable cause for a clash. Yet modern war is sometimes like a "thief in the night," coming swiftly and without warning. Jomini, a master of strategy, has said: "No enemy is so insignificant as to be despised or neglected by any power, however formidable." A wise state should apply the same reasoning to possible foes. Again, he says: "Iron weighs at least as much as gold in the scale of military strength"—an answer wholly apt to the argument of those who, calm in the consciousness of present peace, would rely upon the unsurpassed wealth of the United States and our limitless resources to meet the stress of sudden war, remembering the "gold" only and forgetting the vital "iron" of military strength.

And so, while at this time we are wholly at peace on the Pacific, and the breadth of that wide ocean lies between us and the arsenals of nations which may sometime be hostile to us, yet it must be remembered that in a moment peace may fade and that Hawaii bridges the stretch of sea which, without the island group, would be—at this stage in the development of marine propulsion—impassable to an enemy's fleet. Pearl Harbor is the sole key to the full defense of our Western shore, and that key should lie in our grasp only.

Again, the sudden and wholly unforeshadowed development of Alaska which the gold discoveries of the Klondike probably presage adds a new element of commanding importance to the problem of Pacific defense—supremacy, if you will. It seems not unlikely that this Territory will repeat the history of California—first the wild rush for gold, then abnormal growth in tributary industries, then a wholesome and rapid expansion on natural lines. It is true that Alaska has neither the sunny vineyards, the teeming fruit gardens, nor the broad and fertile fields of California; but, of its resources which are known, it may be said that, in addition to its possibilities, nay, surety of much gold, it holds the world's greatest reserve of timber, its lands are full

of coal, the finest grazing land for cattle, and its fisheries are unsurpassed.

Disregarding, however, the uncertainties of future development, let us consider solely the necessities, now plainly apparent, of the gold-seeker. While a multitude of the latter seem to be preparing for the new El Dorado many must fail to find it owing to the lack, for the time at least, of transportation facilities. The problem of the carriage of even a fraction of the waiting throng over the miles of sea and river to the Klondike is one involving for the present the gravest difficulties. The distance from Seattle to St. Michaels is 2,500 miles by sea, and after the latter port is reached there are still 2,500 miles of the Yukon to traverse by river steamers, which as yet do not exist.

With each Alaskan emigrant from Seattle there must go a ton of supplies for clothing and sustenance, a ton of fuel for his warmth during one winter, and a considerable weight of lumber for his housing. To these there must be added materials of construction for the great number of small and light-draft Yukon steamers yet to be transported in sections to, and erected upon, the banks of that river, and the fuel for the use of this river fleet, which will average not less than two tons for each gold miner and his baggage, stores, lumber, etc. According to a conservative estimate, embracing all of the items noted above, to transport 50,000 men, with the necessary stores, fuel, and materials, will require an ocean service giving at least one arrival per day at St. Michaels of large steamers from Seattle during the five months of available summer weather.

One arrival per day means, as well, an average of one departure per day. At 15 knots speed, steamers will cover the distance of 2,000 miles between the two ports in seven days. Admitting the premises, as above, there will then be always en route, during the time noted, fourteen large steamers, or their equivalent in a greater number of smaller and slower vessels, steam or sail—those outward bound carrying stores, without which the Yukon settlers will perish and our interests there be destroyed; those returning freighted, it is hoped, like the galleons of old Spain, with much treasure, wrested by herculean toil from a frozen and unyielding soil.

In the event of conflict between the United States and a maritime power, this throng of richly laden but helpless vessels will present to the enemy a noble field for attack by the guerre de course, that "commerce destroying" which first formed a factor of naval war during the reign of Elizabeth of England, which was followed with such deadly effect by the *Alabama* and her consorts, and which has at this time many strong advocates, notably in the United States and France.

Now, Hawaii commands fully this ocean route, at a distance from it of less than 2,500 miles—not five days' steaming for the cruiser *Columbia*—and in that flanking position which will give a naval force, using it as a base, such immense power to harass and destroy. The Klondike is Canada's; soon she will, doubtless, lay down railways reaching its limits. Great Britain will then have, not only for the gold-lands, but for all Alaska, the surpassing stragetic advantage of "inner lines" on which to operate in the event of war. Alaska is, for us, practically an over sea province; our sole means of communication with it would appear, now at least, to be an ocean route. Shall we hazard the safety of Seward's imperial territory for this and for all time by refusing Hawaii, the ocean fortress, which in our hands, with an adequate naval force, would make our Alaskan lines of transit unassailable by any foe?

Hawaii's unique advantages as a strategic point of prime importance have been set forth so ably and so often as to forbid their citation here. One or two objections raised by not a few nontechnical critics may, however, be considered. Pearl Harbor is 2,100 miles from our Western coast and Madeira is about the same distance from our eastern shore; the latter has little, if any, military value; why, then, should Hawaii, parted by the same stretch of sea, exceed it in importance? The critics forget that the paramount worth of the Hawaiian group in war will lie, firstly, in the fact that the Pacific is so broad that its passage will exhaust the coal supply of a war vessel, necessitating a renewal at Honolulu; and, secondly, in the isolation of the group, with the absence of other land between it and our coast. If the Pacific were as narrow as the Atlantic, or if other islands intervened, as with Madeira, between our western shore and Hawaii, the strategic value of the latter would be largely reduced.

Again, it has been urged that if we shall take the group we shall but acquire territory to defend; an element not of strength, but of weakness in war, and one which will necessitate large additions to our fleet. Pearl Harbor can be made an impregnable ocean fortress. It is true that one does not wage war with fortresses; it is also true, however, that they form vantage points from which a force may sally, and under whose wing that force may supply and recruit for fresh attack. If Hawaii, in naval conflict, shall have no useful function in this, then it would seem that, through the wars of all time, the eager strife for the possession of fortresses, of guarded ports, of frontier outposts, has been false strategy, an error militarily.

As to the dread of the economist or of the Altrurian that annexation will require largely augmented naval strength, it may be said that, if an adequate force of the United States be stationed at Hawaii and its coast communications be properly guarded, an enemy from oversea would violate some of the cardinal principles of naval stretegy and invite sure disaster in attacking our western shores without first blockading or defeating the Hawaiian squadron. The force at Pearl Harbor should then form simply but the first line of defense; then the seagoing ships "fit to lie in a line," with their torpedo auxiliaries, should be gathered to meet the first assault, leaving the coast guard to the reserve of torpedo craft and monitors stationed at fortified ports. The strength of the squadron at this mid-Pacific outpost should be doubtless sufficient to meet the enemy, but the force on the coast could be reduced.

Some misconception as to Hawaii's value in war seems to arise through a lack of appreciation of what steam has done in the reduction of ocean distances, measuring the latter in the time spent in traversing them. A clearer view may be obtained, perhaps, by referring this time to land travel. Admiral Colomb speaks of "the sea considered as territory over which military forces march." Let us extend this expression somewhat and assume the ocean to be, not a neutral plain, but a "No Man's Land," on which armies may maneuver. Napoleon gave his system of conducting a war as: "To march 25 miles a day, to fight, and then to camp in quiet." At 15 knots' speed a fleet could steam from Pearl Harbor to San Francisco in less than six days. The Emperor, in that time, would have marched his army 150 miles. If, then, we assume the sea to be a great land plain, we must locate Pearl Harbor on that plain at about 150 miles from San Francisco, and, to complete the parallel, must make it practically impregnable and capable of shel-

tering 100,000 men. From this point of view, Hawaii's remoteness would seem to be apparent rather than real.

In the wars which gave our Government birth, and which have attended great crises in its history, thousands spent life itself that a nation might be formed and preserved for those who were to follow them. The men of this generation have added not a few stars to the blue field of our flag. As captains of industry or as toilers in its ranks, they have so developed the resources of our wide land that, after the wants of the greatest home market in the world are filled, there remains of our products a surplus, which, in ever-increasing variety and quantity, forces its way into foreign marts. Shall not we, too, serve the greater Republic that is to come, and in accepting the gift of the Hawaiian group not only make secure our western shore, but give the coming generations a firm grasp on the vast, but for us almost untouched, trade of Pacific shores and islands?

GEO. W. MELVILLE,
Engineer in Chief, U. S. N.